



PM 6043 Light 高集成度声卡
产品规格书

PM 6043 Light High-Integration Sound Card
Product Specifications

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产品简介



PM 6043 Light是一款专门针对产线量产声学测试而设计的声卡。

4 通道单端信号输入，可选择启用或禁用 IEPE恒流源激励器，用于调理麦克风，人工耳，加速度计等IEPE 供电传感器。

4 通道单端信号输出，可选择直接线路出或连接功放底板后输出，进而实现人工嘴驱动，喇叭等大功率负载驱动。

该产品具有通道资源丰富，指标优秀，能满足消费类产品量产声学测试，是一款极具性价比的声卡。

基本特点

- 4通道线路输入，4通道线路输出
- 手动可选启用或关闭 IEPE 恒流源激励器
- 手动可选3通道功率放大器，x4
- IEPE 恒流源带信号接入指示灯，方便安装以及故障排查
- 产品使用标准220V电源供电，方便工业现场使用

产品参数

产品参数	
模拟采集通道数	4
模拟输出通道数	4
IEPE 通道	4 路（外置开关）
IEPE 电源	24V
功放通道	3通道
功放功率	16w（每通道）
总线	USB
产品尺寸(mm)	240*240*76
接口类型	BNC
适用温度	-20℃~50℃

AI 模拟采集通道特性参数

AI 通道参数	
ADC 精度	24 Bit
ADC 类型	Δ - Σ
采样率范围	44.1k 、48k 、88.2k 、96kHz
FIFO 缓冲大小	1024
数据传输方式	DMA

输入电压范围	+/- 1Vp (0.7Vrms)
输入耦合方式	AC 交流耦合
输入阻抗	正输入端对地之间: 1Mohm
平坦度	20Hz~20kHz, 小于 +/- 0.1 dB

AI 空闲通道噪声 Idle noise (uVrms)		
采样率	fs=48kS/s	fs=96kS/s
最大值	32	36
注: [1]短路源阻抗小于50Ω,工作温度23±5°C, IEPE OFF [2]线性计权		

AI 信噪比 SNR (dB)		
采样率	fs=48kS/s	fs=96kS/s
最小值	86.6	85.7
注: [1]单端输入, 交流耦合, 输入信号 1kHz 正弦波, 0dBFS (0.707Vrms) [2]带宽分别为 22.4k、45k [3]线性计权		

AI 动态范围 (dB)		
采样率	fs=48kS/s	fs=96kS/s
最小值	100	98
注: [1]单端输入, 交流耦合, 输入信号 1kHz 正弦波, -1dBFS (0.63Vrms) [2]带宽分别为 22.4k、45k [3]线性计权		

AI 总谐波失真加噪声 THD+N (dB)		
采样率	fs=48kS/s	fs=96kS/s
最大值	-92	-91.7
注: [1]单端输入, 交流耦合, 输入信号1kHz正弦波, -1dBFS (0.63Vrms) [2]带宽分别为 22.4k、45k [3]线性计权		

AI 总谐波失真 THD (dB)		
采样率	fs=48kS/s	fs=96kS/s
最大值	-102.5	-101.5
注: [1]单端输入, 交流耦合, 输入信号1kHz正弦波, -1dBFS (0.63Vrms) [2]带宽分别为 22.4k、45 [3]线性计权		

AI 串扰 Cross talk (dB)		
采样率	fs=48kS/s	fs=96kS/s
最大值	-85	-85

注：[1]单端输入，交流耦合，输入信号1kHz正弦波，-1dBFS (0.63Vrms)
[2]带宽分别为 22.4k、45k
[3]线性计权

AO 模拟输出通道特性参数

AO 通道参数	
DAC 精度	24 Bit
采样率范围	44.1k 、 48k 、 88.2k 、 96kHz
输出电压范围	+/- 1Vp (0.7Vrms)
输出阻抗	正输入端对负输入端：50ohm
平坦度	20Hz~20kHz ， 小于 +/- 0.15 dB

AO 空闲通道噪声 Idle noise (uVrms)		
采样率	fs=48kS/s	fs=96kS/s
最大值	2.8	8.4

注：[1]采集设备阻抗大于1Mohm，工作温度为 23±5℃
[2]线性计权

AO 信噪比 SNR (dB)		
采样率	fs=48kS/s	fs=96kS/s
最小值	107	98

注：[1]单端输出，交流耦合，输出信号 1kHz 正弦波，0dBFS (0.707Vrms)
[2]带宽分别为 22.4k、45k
[3]线性计权

AO 动态范围 (dB)		
采样率	fs=48kS/s	fs=96kS/s
最小值	92	92

注：[1]单端输出，交流耦合，输出信号 1kHz 正弦波，-1dBFS (0.63Vrms)
[2]带宽分别为 22.4k、45k
[3]线性计权

AO 总谐波失真加噪声 THD+N (dB)		
采样率	fs=48kS/s	fs=96kS/s
最大值	-89.5	-89.5

注：[1]单端输出，交流耦合，输出信号 1kHz 正弦波，-1dBFS (0.63Vrms)
[2]带宽分别为 22.4k、45k
[3]线性计权

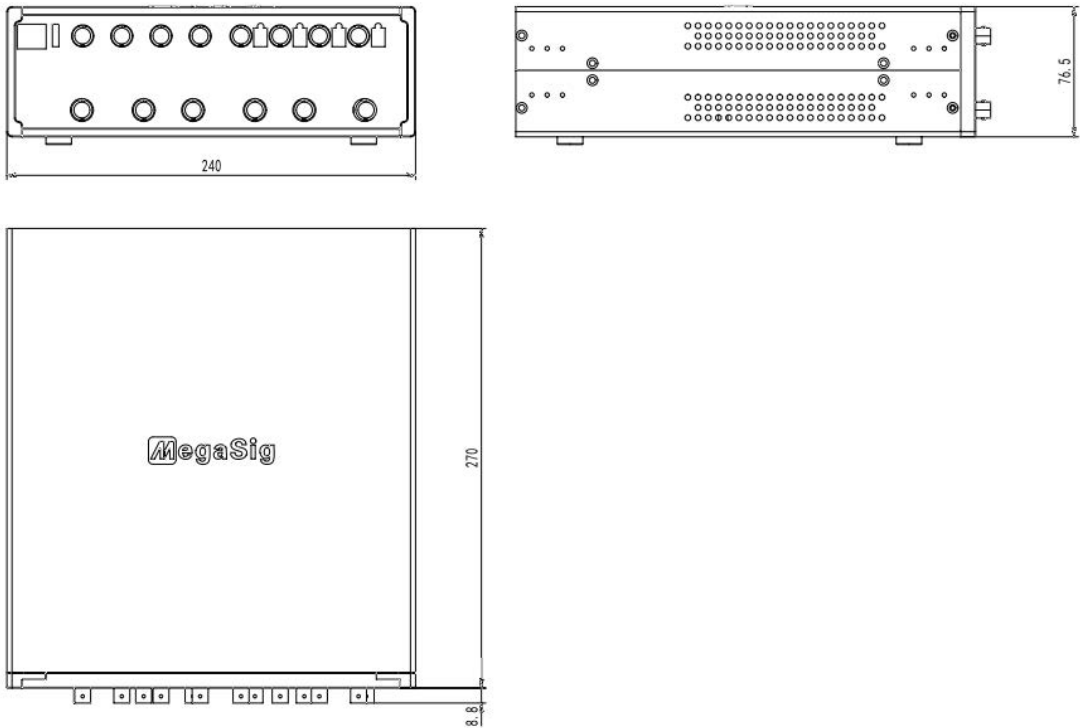
AO 总谐波失真 THD (dB)		
采样率	fs=48kS/s	fs=96kS/s
最大值	-91	-92

注：[1]单端输出，交流耦合，输出信号 1kHz 正弦波，-1dBFS (0.63Vrms)
[2]带宽分别为 22.4k、45k
[3]线性计权

AO 串扰 Cross talk (dB)		
采样率	fs=48kS/s	fs=96kS/s
最大值	-96	-93.6

注：[1]单端输出，交流耦合，输出信号 1kHz正弦波，-1dBFS (0.63Vrms)
[2]带宽分别为 22.4k、45k
[3]线性计权

尺寸单位: mm



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Product introduction



PM 6043 Light is a sound card specifically designed for mass production acoustic testing on production lines.

4-channel single-ended signal input, with the option to enable or disable the IEPE constant current source exciter for regulating IEPE-powered sensors such as microphones, artificial ears, and accelerometers.

4-channel single-ended signal output, can choose direct line or connection power amplifier output after floor, and then implement artificial mouth drive, speakers and other high-power load driver.

The product has rich channel resources, indicators, acoustic test can meet consumer products production, is a highly cost-effective sound card.

Basic features

- 4-channel line input, 4-channel line output
- Manual optional enabling or disabling of the IEPE constant current source exciter.
- Manual selectable 3-channel power amplifier, x4
- The IEPE constant current source is equipped with a signal access indicator light, facilitating installation and troubleshooting
- The product is powered by a standard 220V power supply, making it convenient for use in industrial sites

Specifications

Specifications	
Number of analog input channels	4
Number of analog output channels	4
IEPE channel	4-channel (External switch)
IEPE power supply	24V
Power amplifier channel	3-channel
Amplifier power	16w (Per channel)
Bus line	USB
Product dimensions (mm)	240*240*76
Interface type	BNC
Working temperature	-20°C~50°C

Analog input channel characteristic parameters

AI Channel Parameters	
ADC accuracy	24 Bit
ADC type	Δ - Σ
Sampling rate range	44.1k 、 48k 、 88.2k 、 96kHz
FIFO buffer size	1024

Data transmission mode	DMA
Input voltage range	+/- 1V _p (0.7V _{rms})
Input coupling mode	AC coupling
Input impedance	Between positive input and ground : 1Mohm
Flatness	20Hz~20kHz, less than +/- 0.1 dB

AI Idle Channel Noise (U _v rms)		
Sample rate	fs=48kS/s	fs=96kS/s
Maximum	32	36
Note: [1] Short-circuit source impedance is less than 50Ω, the operating temperature is 23±5°C, and the IEPE is OFF [2] Linear weighting		

AI Signal Noise Ratio (db)		
Sample rate	fs=48kS/s	fs=96kS/s
Minimum	86.6	85.7
Note: [1] Single-ended input, AC coupling, input signal 1kHz sine wave, 0dBFS (0.707V _{rms}) [2] Bandwidths are respectively:22.4k、45k [3] Linear weighting		

AI Dynamic Range (dB)		
Sample rate	fs=48kS/s	fs=96kS/s
Minimum	100	98
Note: [1] Single-ended input, AC coupling, input signal 1kHz sine wave, -1dBFS (0.63V _{rms}) [2] Bandwidths are respectively:22.4k、45k [3] Linear weighting		

AI THD+N (dB)		
Sample rate	fs=48kS/s	fs=96kS/s
Maximum	-92	-91.7
Note: [1] Single-ended input, AC coupling, input signal 1kHz sine wave, -1dBFS (0.63V _{rms}) [2] Bandwidths are respectively:22.4k、45k [3] Linear weighting		

AI THD (dB)		
Sample rate	fs=48kS/s	fs=96kS/s
Maximum	-102.5	-101.5
Note: [1] Single-ended input, AC coupling, input signal 1kHz sine wave, -1dBFS (0.63V _{rms}) [2] Bandwidths are respectively:22.4k、45k [3] Linear weighting		

AI Cross Talk (Db)		
Sample rate	fs=48kS/s	fs=96kS/s
Maximum	-85	-85
Note: [1] Single-ended input, AC coupling, input signal 1kHz sine wave, -1dBFS (0.63V _{rms}) [2] Bandwidths are respectively:22.4k、45k [3] Linear weighting		

Analog output channel characteristic parameters

AO Channel Parameters	
DAC accuracy	24 Bit
Sampling rate range	44.1k 、 48k 、 88.2k 、 96kHz
Output voltage range	+/- 1Vp (0.7Vrms)
Output impedance	Between positive input and negative ground: 50ohm
Flatness	20Hz~20kHz , less than +/- 0.15 dB

AO Idle Channel Noise (uVrms)		
Sample rate	fs=48kS/s	fs=96kS/s
Maximum	2.8	8.4
Note: [1] Collecting device impedance is more than 1Mohm ,operating temperature 23±5°C [2] Linear weighting		

AO Signal Noise Ratio (dB)		
Sample rate	fs=48kS/s	fs=96kS/s
Minimum	107	98
Note: [1] Single-ended output, AC coupling , output signal 1kHz sine wave, 0dBFS (0.707Vrms) [2] Bandwidths are respectively:22.4k、 45k [3] Linear weighting		

AO Dynamic Range (dB)		
Sample rate	fs=48kS/s	fs=96kS/s
Minimum	92	92
Note: [1] Single-ended output, AC coupling , output signal 1kHz sine wave, -1dBFS (0.63Vrms) [2] Bandwidths are respectively: 22.4k、 45k [3] Linear weighting		

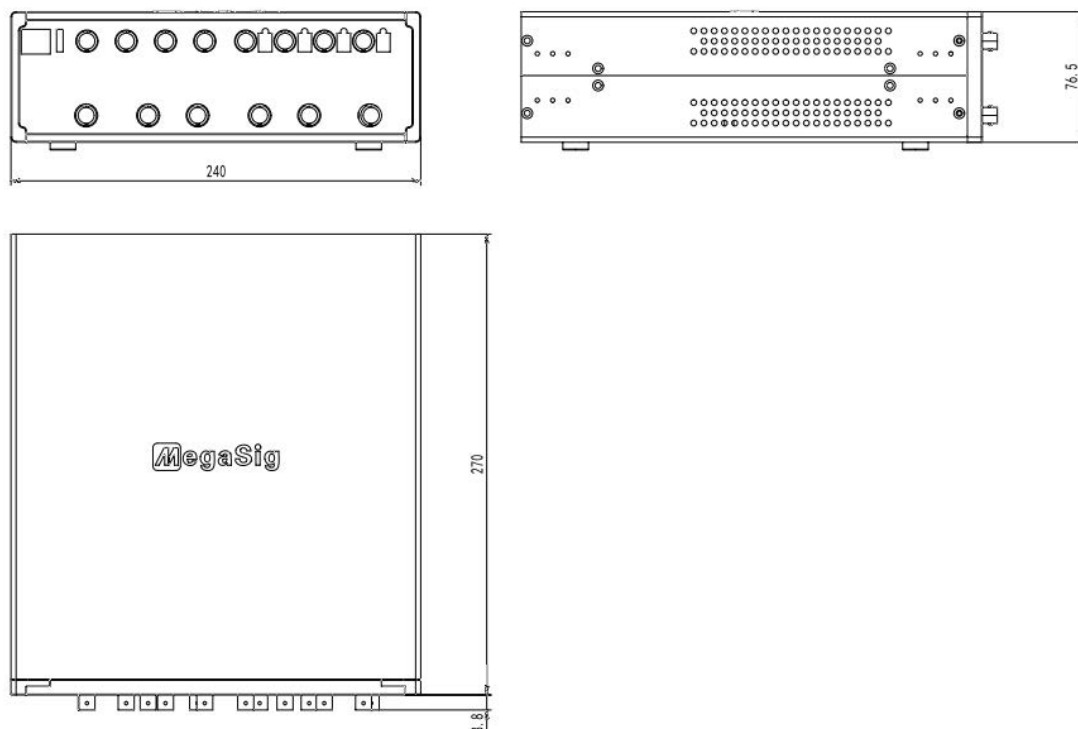
AO THD+N (dB)		
Sample rate	fs=48kS/s	fs=96kS/s
Maximum	-89.5	-89.5
Note: [1] Single-ended output, AC coupling , output signal 1kHz sine wave, -1dBFS (0.63Vrms) [2] Bandwidths are respectively:22.4k、 45k [3] Linear weighting		

AO THD (dB)		
Sample rate	fs=48kS/s	fs=96kS/s
Maximum	-91	-92
Note: [1] Single-ended output, AC coupling , output signal 1kHz sine wave, -1dBFS (0.63Vrms) [2] Bandwidths are respectively: 22.4k、 45k [3] Linear weighting		

AO Cross Talk (dB)		
Sample rate	fs=48kS/s	fs=96kS/s
Maximum	-96	-93.6

Note: [1] Single-ended output, AC coupling , output signal 1kHz sine wave, -1dBFS (0.63Vrms)
[2] Bandwidths are respectively: 22.4k、45k
[3] Linear weighting

Dimensional unit: mm



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